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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,939	08/18/2005	Hartwin Weber	0070747-000012	8392
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EXAMINER				
ZHU, WEIPING				
ART UNIT		PAPER NUMBER		
1793				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary

Application No.

10/522,939

Applicant(s)

WEBER ET AL.

Examiner

WEIPING ZHU

Art Unit

1793

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7-11, 13, 14, 16 and 18-24 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-11, 13, 14, 16, 18 and 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/22/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

1. Claims 1-3, 7-11, 13, 14, 16, 18 and 21-24 are currently under examination, wherein claims 1-3, 7-11, 13, 14, 16 and 18 have been amended and claims 21-24 have been newly added in applicant's amendment filed on February 22, 2008. Claims 4-6, 12, 15 and 17 have been cancelled and non-elected claims 19 and 20 have been amended in the same amendment.

Applicant's election with traverse of Invention I, Claims 1-18 in the reply filed on February 22, 2008 is acknowledged. The traverse is on the ground(s) that the claimed maraging steel possesses particular properties that are not disclosed for the maraging steel of Weber et al. (US Pub. 2003/0091458 A1); and the examiner is neither the ISA nor the IPEA, and that there is no reason for the examiner to now assert that unity of invention is lacking in the instant application when a common "special technical feature" exists. This is not found persuasive. As stated in the Office action dated October 24, 2007, the common technical feature in all groups is the maraging steel. This element cannot be a special technical feature under PCT Rules 13.2 because the element is shown in the prior art. WO 01/53556 A1 discloses a maraging steel (abstract), which is substantially identical to the claimed maraging steel. The claimed and Weber et al. (458 A1)'s maraging steels are not only substantially identical in compositions but also are produced by substantially identical processes. Therefore, a prima facie case of obviousness exists. The same properties would be expected in the maraging steel of Weber et al. (458 A1) as in the claimed maraging steel. See MPEP 2112.01 [R-3] I.

Inventions I-II lack the same or corresponding special technical features and unity of the invention is lacking. Besides to the contrary of the applicant's assertion, the examiner is entitled to make a restriction requirement in a National Stage application when the unity of the application is lacking. See MPEP 1893.03(d).

The requirement is still deemed proper and is therefore made FINAL.

Status of Previous Rejections

2. The previous objections of claims 2 and 5, the previous rejections of claims 1-18 under 35 U.S.C. 103(a) and the previous provisional rejections of claims 1-18 on the ground of nonstatutory obviousness-type double patenting as stated in the Office action dated October 24, 2007 have been withdrawn in light of applicant's amendment filed on February 22, 2008.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 7-11, 13, 14, 16, 18 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/53556 A1 (Weber et al. US 2003/0091458 A1) in view of Ezawa et al. (US 2002/0045490 A1).

Because WO ('556 A1) is in German, its corresponding US publication Weber et al. ('458 A1) is relied upon to establish the rejection ground.

With respect to claims 1, 9-11, 13, 14, 16, 18 and 21-24, Weber et al. (458 A1) discloses a maraging steel with a martensite temperature $M_s \geq 130^\circ \text{C}$, a ferrite content $C_{\text{ferrite}} < 3\%$, wherein the maraging steel essentially consists of by weight 6.0-9.0% of nickel, 11.0-15.0% of chromium, 0.1-0.3% of titanium, 0.2-0.3% of beryllium and the rest being iron together with unavoidable impurities (abstract). Weber et al. (458 A1) further discloses the maraging steel contains by weight up to 0.1% cerium or cerium misch metal (paragraph [0023], page 2); at least one of the elements of manganese, niobium or silicon in individual proportion of less than 0.5% (paragraph [0020], page 2); at least one of the elements of C, N, S, P, B, H, or O in individual proportion of less than 0.1% (paragraph [0022], page 2); and up to 4% copper (paragraph [0020]). The composition of the maraging steel of Weber et al. (458 A1) overlaps the claimed compositions. A prima facie case of obviousness exists. See MPEP 2144.05 I.

Weber et al. (458 A1) further discloses a process to produce the maraging steel (paragraph [0029], page 2), which is substantially identical to the process of the instant invention.

Weber et al. (458 A1) does not specify the mechanical properties as claimed in the instant claims 1 and 9-11, 13, 14, 16, 18 and 21-23 and the grain size as claimed in the instant claim 24. However, it has been well held where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977), MPEP 2112.01 [R-3] I. In the instant case, the claimed

and Weber et al. (458 A1)'s maraging steel are identical or substantially identical in composition or structure and are produced by identical or substantially identical processes, therefore, a prima facie case of obviousness exists. The same tensile strength, the same yield strength, the same alternating flexure strength, the same hardness, the same maximal storage energy and the same grain size would be expected in the maraging steel of Weber et al. (458 A1) as in the claimed maraging steel.

Weber et al. (458 A1) does not disclose a golf club head that is at least partly made of the maraging steel as claimed. Ezawa et al. ('490 A1) discloses a golf club head made at least partially of a maraging steel (paragraph [0010], page 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the maraging steel of Ezawa et al. ('490 A1) with the maraging steel of Weber et al. (458 A1) with expected success, because the maraging steels are functionally equivalent in terms of being used to make golf club heads as disclosed by Ezawa et al. ('490 A1) (paragraph [0010], page 1). See MPEP 2144.06

With respect to claim 2, Weber et al. (458 A1) in view of Ezawa et al. ('490 A1) discloses that the golf club head wherein up to 35% of the chromium content can be replaced by molybdenum and/or tungsten (paragraph [0019], page 2).

With respect to claim 3, Weber et al. (458 A1) in view of Ezawa et al. ('490 A1) discloses that the golf club head wherein the maraging steel consists essentially of by weight 7.8% of nickel, 13.0% of chromium, 0.2% of titanium, 0.25% of beryllium, 1.0%

of molybdenum and the rest being iron together with unavoidable impurities (paragraph [0035], page 3).

With respect to claims 7 and 8, Weber et al. (458 A1) in view of Ezawa et al. ('490 A1) discloses the identical formulas for the martensite temperature M_s and the ferrite content C_{ferrite} respectively as claimed (paragraphs [0024] and [0025], page 2).

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 7-11, 13, 14, 16, 18 and 21-24 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the claims 1-9 of Weber et al. (458 A1) in view of Ezawa et al. ('490 A1). Claims 1-9 of Weber et al. (458 A1) disclose a maraging steel, which is the same or obvious from the claimed maraging steel of the instant application.

Weber et al. (458 A1) does not disclose a golf club head that is at least partly made of the maraging steel as claimed in the instant claims 1-3, 7-11, 13, 14, 16, 18 and 21-24. Ezawa et al. ('490 A1) is further applied to the claimed limitations in the instant claims 1-3, 7-11, 13, 14, 16, 18 and 21-24 for the same reasons as stated in the paragraph 3 above.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

5. The applicant's arguments filed on February 22, 2008 have been fully considered but they are not persuasive.

First, the applicant argues that the process of Weber et al. (458 A1) is different from the that of the instant invention, therefore the properties of the claimed and Weber

et al. (458 A1)'s maraging steels are not identical even though the compositions of the maraging steels overlap; the application of In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977), MPEP 2112.01 [R-3] I by the examiner is improper. In response, the examiner notes that Weber et al. (458 A1) discloses that a second cold forming takes place to obtain greater hardness and a second heat treatment follows (paragraph [0031]). The claimed and Weber et al. (458 A1)'s maraging steels are not only substantially identical in compositions but also are produced by substantially identical processes. Therefore, a prima facie case of obviousness exists. The application of In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977), MPEP 2112.01 [R-3] I by the examiner as stated in the Office action dated October 24, 2007 is proper and maintained.

Second, the applicant argues that the design requirements for the maraging steel for a golf club head and the maraging steel of Weber et al. (458 A1) are fundamentally different. In response, the examiner notes that Ezawa et al. ('490 A1) discloses a golf club head made at least partially of a maraging steel (paragraph [0010], page 1), which obviously include the maraging steel of Weber et al. (458 A1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the maraging steel of Ezawa et al. ('490 A1) with the maraging steel of Weber et al. (458 A1) with expected success.

Third, the applicant argues that the differences in properties between the Weber et al. (458 A1) and those of the instant application are apparent, therefore, the obviousness-type double patenting rejection of claims 1-18 as stated in the Office action

dated October 24, 2007 is improper. In response, see the responses to the applicant's 1st and 2nd arguments above.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art
Unit 1793

WZ

4/28/2008

Application Number**Application/Control No.**

10/522,939

Examiner

WEIPING ZHU

**Applicant(s)/Patent under
Reexamination**

WEBER ET AL.

Art Unit

1793